

said second wall of the same pair; a visco-elastic layer of flexible polyurethane foam 4 cm thick adhered on top of said nucleus; and a three dimensional knit padding.

2. (Canceled) Polyurethane spring mattress (1) according to the first claim characterised in that the springs (5) of said mattress are provided with spirals (5.1) that are shaped by cutting the aforementioned block with a specific machine and discarding the excess material.

3. (Canceled) Polyurethane spring mattress (1) according to the first claim, characterised in that said springs (5) can be made up of different numbers of spirals (5.1) for different springs within a single mattress and are distributed in relation to the area of the mattress and the relative distribution of a person's weight, with the objective of varying the resistance to compression of said springs and therefore of the mattress.

4. (Amended) Polyurethane foam spring mattress (1) according to [the first] claim 1, [characterised in that] wherein the springs (5) of said mattress have the shape of the trunk of a pyramid (9) with pairs of mutually opposite zigzagged walls, [and are provided with spirals (5.1)] and wherein a pair of said nuclei having said plurality of springs are shaped [by cutting a parallelepiped rectangular] in one process from said block of polyurethane foam by means of a [specific] programmable machine with [in two steps: a first step for shaping by means of a cutting] a blade [manoeuvred by said machine, which covers] covering the entire length or width of [the] said polyurethane block, said blade cutting firstly a first pair of mutually [two first] opposite [faces of each] zigzagged walls of said springs (5) [and partially, two platforms (6) into which all of the springs (5) of each mattress (1) are integrated, and a second step for shaping by means of the same cutting blade manoeuvred by said machine, which covers the entire length or width of the polyurethane block, a second pair of opposite faces adjacent to the first two faces and completely the two platforms (6) in which all of the springs (5) of each mattress are integrated, after turning said block 90° around a vertical axis, producing less than 1% of the material of the block as waste product since two essentially equal and complementary pieces are obtained.] along a longitudinal dimension of said block and secondly along a transversal dimension of said block, whereby both nuclei of said pair of nuclei having said plurality of truncated pyramidal springs are complementary and substantially equal, and said pair of nuclei use substantially the entire block of polyurethane foam.